



CASP 2024 Bicycles for children

Final activity report

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List of abbreviations

CASP	Coordinated Activities on the Safety of Products
EFTA	European Free Trade Agreement
EN	European Standard
EU	European Union
GPSR	General Product Safety Regulation 2023/988
IM	Intermediate meeting
ISO	International Organisation for Standardisation
KoM	Kick-off meeting
MSA	Market surveillance authority
PSA	Product-specific activity
TSD	Toy Safety Directive 2009/48/EC

Executive summary

Objectives

The overarching goal of the Coordinated Activity on the Safety of Products (CASP) project is to protect the health and safety of European consumers by supporting national authorities from EU/EFTA countries responsible for market surveillance (MSAs) to better coordinate their activities. MSAs participate in joint sampling, testing and risk assessment of specific products during the CASP project.

Product scope

The activity includes bicycles for children and toy bicycles. The product categories are differentiated based on the maximum height of the bicycle's saddle.

Main testing criteria and results

A total of 47 samples were tested. The 26 bicycles for children were tested according to **EN ISO 8098:2023**,

and the 21 toy bicycles were tested against the standard **EN 71-1: 2014+A1:2018** Safety of Toys.

For both children's bicycles and toy bicycles, none of the samples met all the requirements. This is also the case for bicycles for children when excluding the results of the checks on warnings, markings and instructions. Seven samples of toy bicycles met the mechanical requirements of the testing plan, but did not pass the checks on warnings, markings and instructions.

Conclusions

The results of this activity pose significant concerns, as all tested samples failed to meet the requirements. These failures may present significant risks for children, such as finger entrapment, falls and injuries. As a result of the testing campaign, MSAs issued two Safety Gate notifications¹.

According to risk assessments performed by the MSAs, 15 bicycles for children and 3 toy bicycles presented a serious risk. The main measures taken for the products that did not meet the requirements are: 14 were recalled from end users, 8 were withdrawn from the market, sales of 5 were banned and sales of 11 products were stopped.

Key recommendations to stakeholders

For consumers:

- ▶ Ensure your child's safety when riding a bike: make sure the bicycle is appropriate for the child and that they wear personal protective equipment.
- ▶ Beware of the distinction between bicycles for children and toy bikes. Toy bikes have a maximum saddle height of 435 mm or less and are not suitable for use on public roads.
- ▶ Before buying or using a bike, check for common dangers such as steering and breaks. If you are assembling a bike, follow instructions carefully. Regularly check the bike's condition.

For economic operators:

- ▶ Make sure that all instructions, warnings and labels (including torque specifications) are in place and clearly visible in the country's official language(s).
- ▶ If you place a private label on a bike/toy, you assume the same responsibilities as manufacturer. You have the legal obligation to have your contact details on the bicycle.
- ▶ If your product is a toy bicycle, labelling should clearly indicate that it should not be used on public roads.

For standardisation organisations:

- ▶ It would be helpful to add a symbol indicating that toy bicycles should not be used on the public road.
- ▶ Ensure the font used for markings and warnings is at least 12 mm in height.

¹ Until 27.03.2025 (included).



Part I

Overview of the activity

Participating MSAs

		Country	MSA
1		Austria	Federal Ministry of Social Affairs, Health, Care and Consumer Protection
2		Bulgaria	Commission for Consumer Protection
3		Croatia	State Inspectorate
4		Czechia	Czech Trade Inspection Authority
5		Finland	Finnish Transport and Communications Agency
6		Germany	Government of Middle Franconia - Trade Supervisory Office
7		Iceland	Housing and Construction Authority (HMS) ²
8		Lithuania	State Consumer Rights Protection Authority
9		Malta	Malta Competition and Consumer Affairs Authority
10		Norway	Norwegian Directorate for Civil Protection
11		Poland	Office of Competition and Consumer Protection (UOKiK)
12		Slovak Republic	Slovak Trade Inspection
13		Spain	Ministry of Industry and Tourism ²


Product scope

There are several types of bicycles for children available on the market. In terms of standardisation, bicycles intended for children are categorised by saddle height. According to Point 4 of Annex 1 of the TSD, standard EN 71-1 A20 and EN ISO 8098 clause 1 those with a maximum saddle height above 435 mm are children's bicycles. Those with a maximum saddle height below 435 mm are toy bicycles. Both these products were tested under this activity.

Children's bicycles are characterised by saddle heights ranging from 436 mm to 635 mm and are driven by a transmitted mechanism to the rear wheel. **Toy bicycles** are intended for play rather than riding and transportation and may not have functional brakes or gears.

² MSAs can participate in the CASP project in the testing-only modality. Testing-only participants are allowed to participate in the testing process but are not involved in the discussions and decision-making processes and do not take part in the activity meetings.

Table 1: Product scope

Product sub-category	Photo	Description
Children's bicycles		Bicycles with max saddle height over 435 mm are children's or junior bicycles.
Toy bicycles		Bicycles with max saddle height under 435 mm are toy bicycles.

Testing criteria

The testing plan for this activity includes:

- For children's bicycles: a set of tests to ensure safety and durability according to EN ISO 8098:2023, such as sharp edges, exposed protrusions, brakes, steering, frames and fork, wheels and tyres assembly, pedals and crank drive, saddles and seat posts, chain-wheel and belt drive protection devices, and stabilisers.
- For toy bicycles: tests on braking requirements, acoustics, strength, transmission and wheel arrangement, adjustable seat pillar and handlebar stem minimum insertion marks, as well as warnings and instructions for use (according to EN 71-1:2014+A1:2018).

Sampling and testing

Sampling distribution

The sampling process was carried out by the MSAs based on the sampling distribution agreed during the KoM and some minor adjustments needed to reflect the markets' availability. A total of 48 samples were collected by the participating MSAs (27 bicycles for

children and 21 toy bicycles), both online and from physical stores.

Out of the 48 collected samples, 1 was not tested³, since the product was out of the scope of the activity.

Testing process

The testing laboratory for this activity was selected through a tender procedure, launched at the end of February 2024. The tender specifications were sent to 33 laboratories in the EU/EFTA that had been identified following the project team's laboratory engagement strategy. Each laboratory was asked to submit an offer including the elements mentioned in the tendering document, such as detailed information on pricing and supporting documents supplying evidence of certification, the relevant experience of the experts and test report templates.

The deadline for submission was extended by three days to allow for the reception of more offers. Overall, four laboratories submitted an offer within the given timeframe.

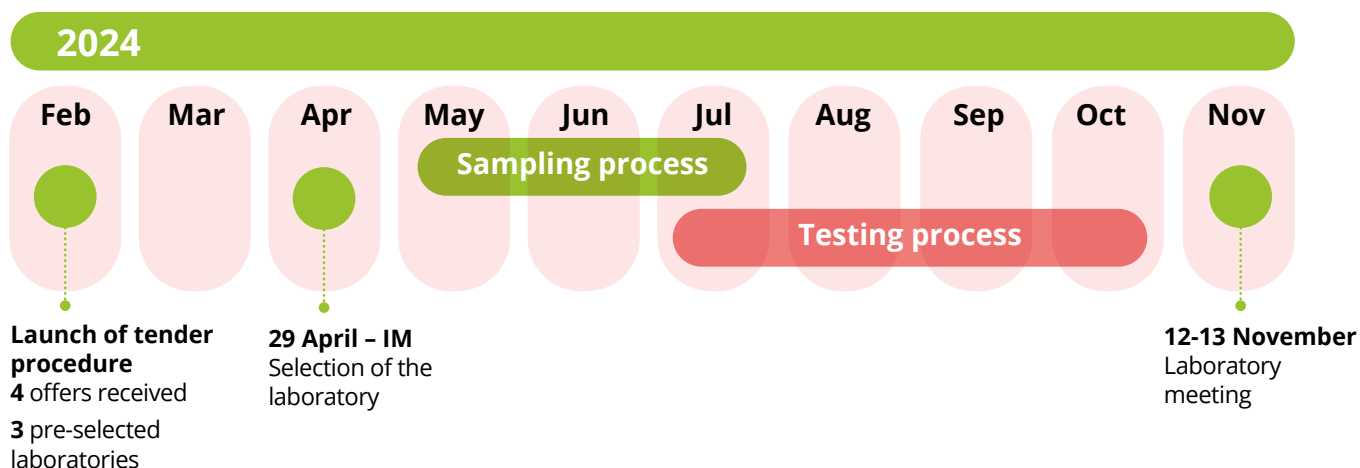
Based on the completeness and competitive of the offer, three laboratories were pre-selected and invited to an interview to further discuss their offers.

During the IM, the MSAs were presented with comparative analyses of the technical quality and financial aspects of the offers received from the laboratories. The MSAs selected the laboratory that was awarded the highest number of final points based on the quality and financial competitiveness of their offer.

Following the selection of the laboratory, the MSAs were given approximately two months to collect the samples and send them to the laboratory. The testing process lasted from the end of June to October 2024. The laboratory meeting took place on 12 to 13 November 2024.

³ PSA6_2.

Figure 1: Timeline of the sampling and testing process



Test results

Overview of the test results and main findings

All tested samples did not meet at least one of the relevant requirements.

The MSAs performed checks on warnings, markings and instructions in their national language(s) revealed that 39 out of 47 samples did not meet the requirements.

Results per category

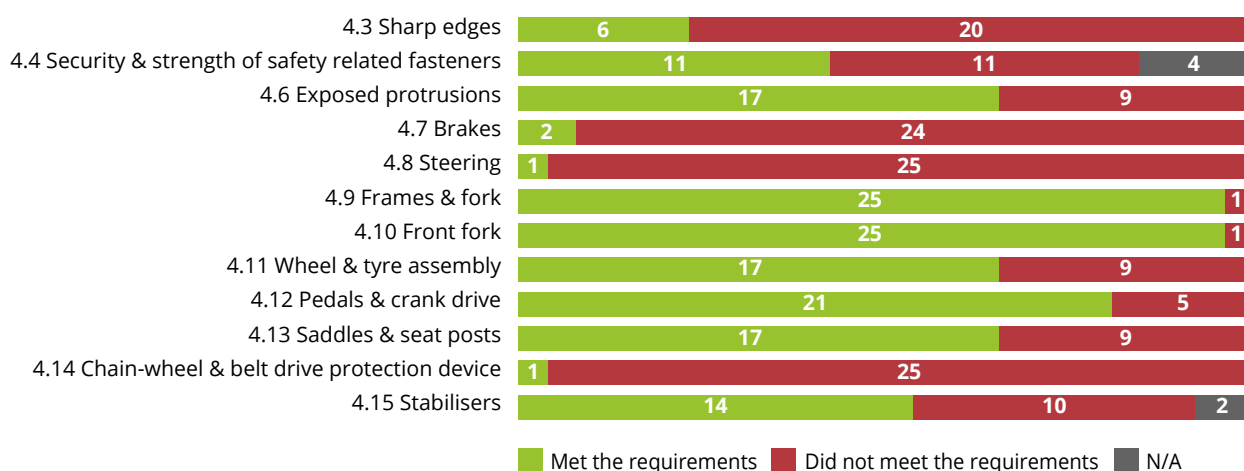
Children's bicycles

For standard EN ISO 8098:2023, the clauses with the highest percentage of failures were those related to the chain-wheel and chain protection device (96 %), steering (96 %) and brakes (92 %).

The front fork and the frames and fork, the parts of the product that hold it together, showed the lowest rate of failure (4 %).

The results of the checks on warnings, markings and instructions show that all samples failed the requirements on markings (100 %), and 16 out of 25 samples (64 %) failed the instructions clause.

Figure 2. Bicycles for children test results per clause

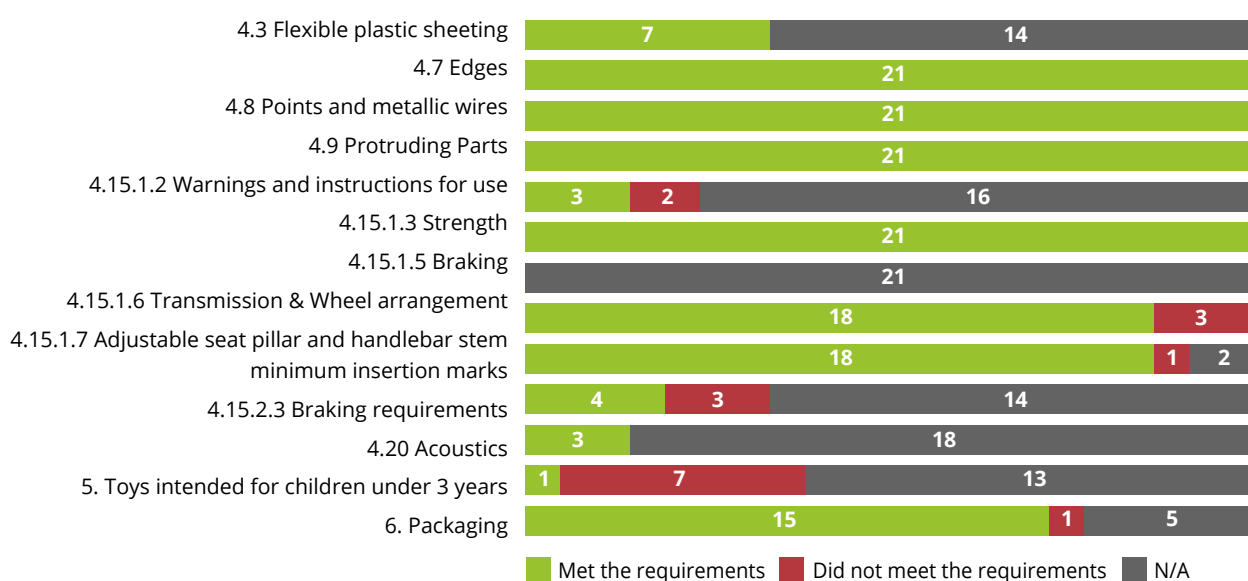


Toy bicycles

Seven samples of toy bicycles met the mechanical requirements of the testing plan. Among these seven, two samples⁴ failed some of the tests as part of the TSD — Chapter II, Art. 4, and CE marking. None of the samples passed the checks on warnings, markings and instructions, with the exception of one product that failed under the TSD.

For standard EN 71-1: 2014+A1:2018, excluding the clauses related to warnings and instructions for use of toy bicycles (100 % failure), the clauses with most failures were clauses 5 the release of small parts from toy bicycles intended for under 3 year olds, 4.15.2.3 braking requirements and 4.15.1.6. inadequate toy bicycle drive chain/belt guards (transmission and wheel arrangement).

Figure 3. Toy bicycles test results by clause



Conclusions on the test results

It is a matter of great concern that most of the bicycles for children and toy bicycles failed at least one aspect of the required mechanical safety standards. This is particularly alarming as these consumer products are used by children and young persons to propel themselves, often at speed, in higher-risk places such as roads, cycle paths and other public areas. Specifically:

- For bicycles for children, two of the most frequently failed mechanical safety requirements relate to clauses 4.8 Steering (96 %) and to 4.7 Brakes (92 %). Such failures in use can result in catastrophic risk

to the vulnerable user, most likely due to the use of unsuitable or low-quality components.

- For toy bicycles, two of the most frequently failed mechanical safety requirements relate to clauses 5 the release of small parts from toy bicycles intended for under 3-year-olds (88 %) and to 4.15.2.3 Braking requirements (43 %). Although the speeds attained by these toys are less than those of bicycles for children, these are defects that should not occur in such toy products and would place the small child user at risk, for example, when riding downhill.

Warnings, markings and instructions

The checks performed by the MSAs on warnings, markings and instructions in their national language(s) revealed that 39 out of 47 samples did not meet the requirements. The main reason for non-compliance for bicycles for children was due to missing instructions (13 samples). For toy bicycles, four samples did not have warnings labelling and instructions in the member state official language.

Another three samples had warnings that conflicted with the intended use as by their function, dimensions and characteristics. Lastly, three samples lacked the required type, batch or serial number information.

These elements are an essential source of information for the parents/carers on the product and on its safe use.

⁴ PSA6_31 and PSA6_42

Risk assessment and corrective measures

Risk assessment results

According to GPSR⁵, safe products are those that do not present any risks under normal or reasonably foreseeable conditions of use. When MSAs assess whether a product poses a risk, Article 26 on the notifications of dangerous products through the Safety Gate Rapid Alert System should be respected⁶.

In total, none of the 47 tested samples met all the requirements. This was due to failures in the mechanical tests, and in warnings, markings and instructions.

- ▶ 17 bicycles for children were evaluated as posing either a serious (15), high (1) or medium (1) risk.
- ▶ For toy bicycles, 7 samples were evaluated as having a serious (3), high (3) or medium (1) risk.

Figure 4 and Figure 5 show the risk levels (based on the assessment performed by the MSAs) of the samples that did not meet the requirements.

Figure 4. Risk levels of bicycles for children

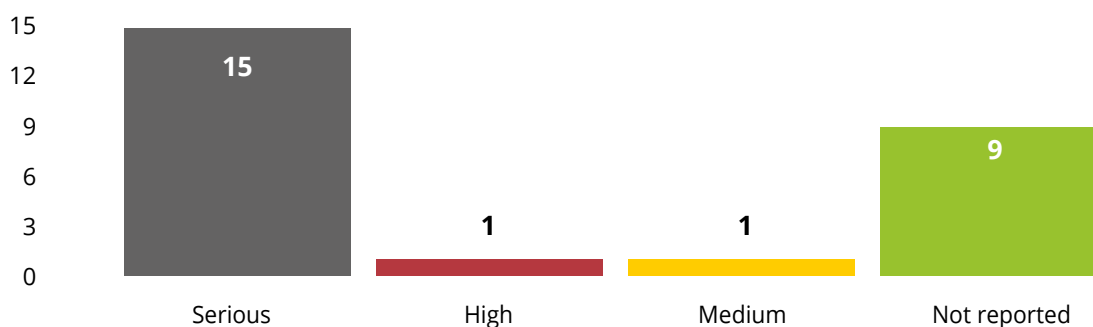
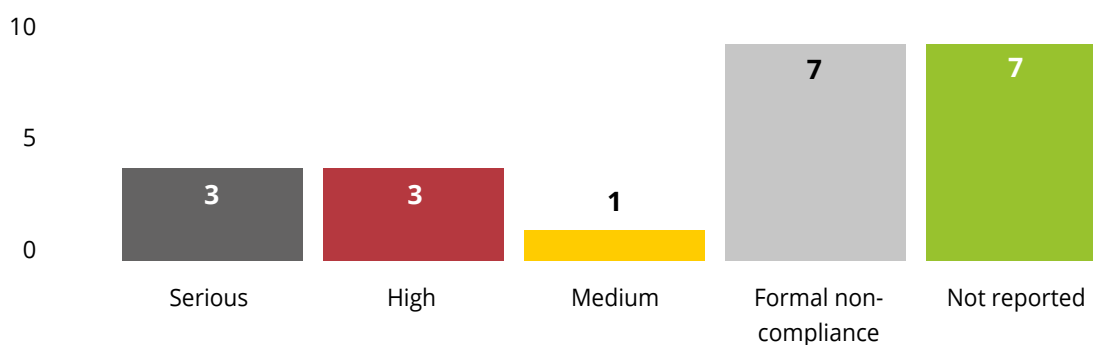


Figure 5. Risk levels of toy bicycles



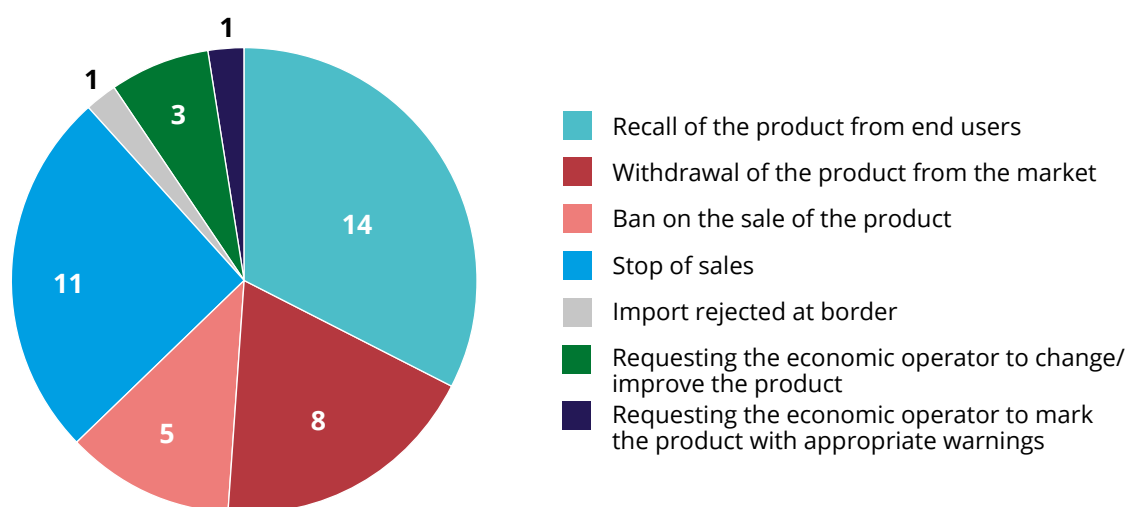
⁵ Regulation (EU) 2023/988 of the European Parliament and of the Council of 10 May 2023 on general product safety — Article 3.

⁶ Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products.

Corrective measures

Based on the test results and risk assessments, the MSAs determined the corrective measures for products that do not comply with EU legislation and/or applicable standards, to prevent dangerous products from entering the European single market. Figure 6 illustrates the corrective measures taken for products that failed to meet the testing requirements.

Figure 6. Measures taken for products that did not meet the requirements (N=47)



Additionally, when a serious risk is identified, MSAs are legally required to submit a notification through the Safety Gate Rapid Alert System in accordance with Article 26 of the GPSR⁷. On the basis of the GPSR and Regulation (EU) 2019/1020⁸, it is also recommended to submit notifications of measures taken for products that are assessed as posing a less-than-serious risk.

Following the actions triggered by this testing campaign, Safety Gate notifications were issued for two products.

⁷ Regulation (EU) 2023/988 of the European Parliament and of the Council of 10 May 2023 on general product safety.

⁸ Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products.

Conclusions and recommendations

Conclusions

The activity indicated a significant failure rate for both types of products. In particular **bicycles for children** recorded 26 samples (100 %) not meeting at least one of the requirements outlined in the testing plan. Moreover, these results remain valid even when excluding checks on warnings, markings and instructions. For children's bicycles, the primary issues identified were related to chain-wheels and chain protection devices (96 %), steering (96 %) and brakes (92 %). **Toy bicycles** recorded 14 samples (67 %) not meeting at least one of the testing requirements. When including the requirements on warnings, markings and instructions⁹ all samples (100 %) failed to meet at least one of the relevant requirements. For toy bicycles, the primary issues identified were

related to small part risks to under 3-year-olds (7 out of 8 samples, 88 %), and braking requirements (3 out of 7 samples, 43 %).

Furthermore, checks performed by the MSAs on warnings, markings and instructions in their national language(s) showed that 39 of the 47 samples did not meet the requirements. This is an important part of the risk profile of any product as it provides crucial information about a product's correct use.

MSAs issued two Safety Gate notifications and mandated that economic operators withdraw the products from the market and warn consumers of the associated risks.

Recommendations to stakeholders

The following recommendations are based on the outcome of the testing process and discussions among MSAs during the project.

For consumers:

- ▶ To ensure your child's safety when riding a bike, please make sure they wear personal protective equipment, such as helmets and elbow and knee pads.
- ▶ Beware of the distinction between bicycles for children and toy bikes. Children's bicycles have a maximum saddle height above 435 mm and are categorised as sports equipment. Toy bikes have a maximum saddle height of 435 mm or less and are not suitable for use on public roads. To determine the maximum saddle height of your child's bike, please refer to the product instructions or packaging, or measure it yourself. See the instructions below for guidance:
- ▶ Make sure the bicycle is the right size for your child's age and height.
- ▶ One bike, one child – even if the saddle is long enough for two.
- ▶ Before buying or using a bike, if possible check for common dangers like sharp edges, risk of clothing getting caught in the chain and finger entrapment.
- ▶ Regularly check the bike's condition to ensure its features are functioning correctly (e.g. cracks in the chassis, functional brakes, fixed grip on the handlebar, proper support wheels, etc.).
- ▶ Several product testing failures found in bicycles for children and toy bicycles have included the presence of sharp edges and incomplete labels or manuals.
- ▶ Follow the assembly instructions in the user manual carefully if you need to assemble the bicycle yourself.
- ▶ Check on [Safety Gate](#) to see if the product you are buying has been identified as dangerous.
- ▶ Report any safety issues or accidents with your product to your consumer protection authority on [Consumer Safety Gateway](#).



⁹ The clause 4.15.2 Toy bicycles includes both 4.15.2.2 Warning and instructions for use and 4.15.2.3 Braking requirements.

For economic operators:

- ▶ You are responsible for a bicycle's safety as a manufacturer or importer, or if your company's name appears on it. Make sure that all instructions, warnings and labels are in place and clearly visible, in the country's official language(s).
- ▶ As a manufacturer or importer, you have the legal obligation to have your contact details on the bicycle. Distributors must verify that these details are provided before distributing the product. The presence of contact details on the product is not only an obligation but also helps to increase consumer confidence in the product.
- ▶ Be aware that a new version of the safety standard for bicycles for children is coming soon.
- ▶ There is evidence that some toy bicycles have small, plasticised stickers that can fail testing as small parts and should not be used.
- ▶ Please ensure all torque specifications for a bicycle's components are clearly stated in the product instructions.
- ▶ If your product is a toy bicycle, ensure that the labelling clearly indicates that it is not intended for use on public roads.
- ▶ Be aware that when you place a private label on a bike/toy, you assume the same responsibilities as manufacturer.

For standardisation organisations:

- ▶ To ensure correct use of toy bicycles, it would be helpful to add a symbol indicating that this product should not be used on public roads.
- ▶ Ensure the font used for markings and warnings is at least 12 mm in height.



Part II

What is CASP?

The Coordinated Activities on the Safety of Products (CASP) project enables close cooperation between market surveillance authorities from European Union/

European Free Trade Agreement countries to ensure the safety of products on the Single Market.

CASP 2024 includes seven product-specific testing activities and two horizontal activities

Participants in the product-specific activities test the jointly selected products sampled on their respective national markets. The products are tested in accredited laboratories in the EU/EFTA according to the commonly agreed testing criteria.

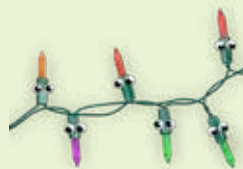
CASP 2024 also includes one re-testing activity. Based on the same testing plan as in the previous testing campaign of the given product category, the re-testing initiative involves repeating large-scale market surveillance activities for those product categories to verify the compliance level after a certain period of time.



PSA 1
Baby soothers



PSA 2
High chairs



PSA 3
Lighting chains



PSA 4
Mini electric heaters



PSA 5
Disposable electronic
cigarettes



PSA 6
Bicycles for children



PSA 7
Slime toys (re-testing)

Horizontal activities provide a knowledge-exchange forum for market surveillance authorities. With the guidance of technical experts in the relevant fields, the participants develop common approaches, procedures, and practical tools for market surveillance.

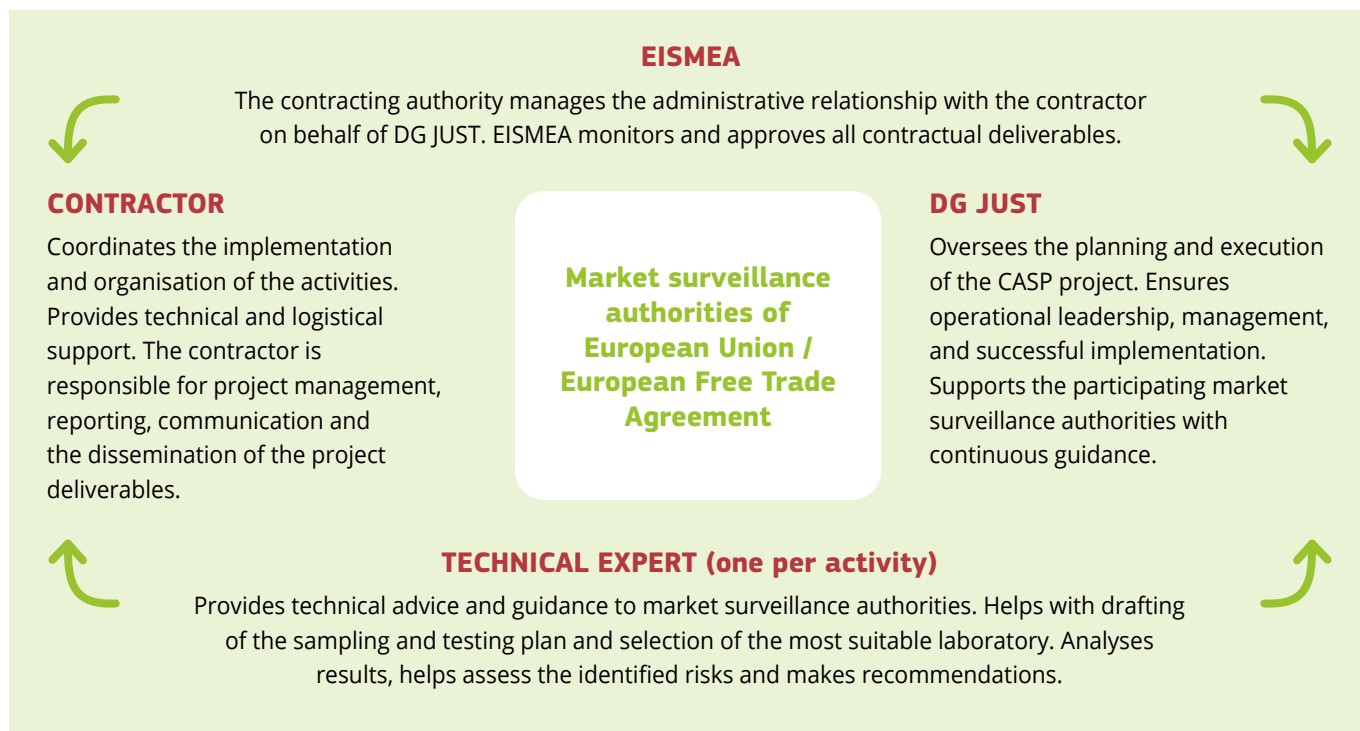


HA 1
Standardisation – use of
standards by analogy

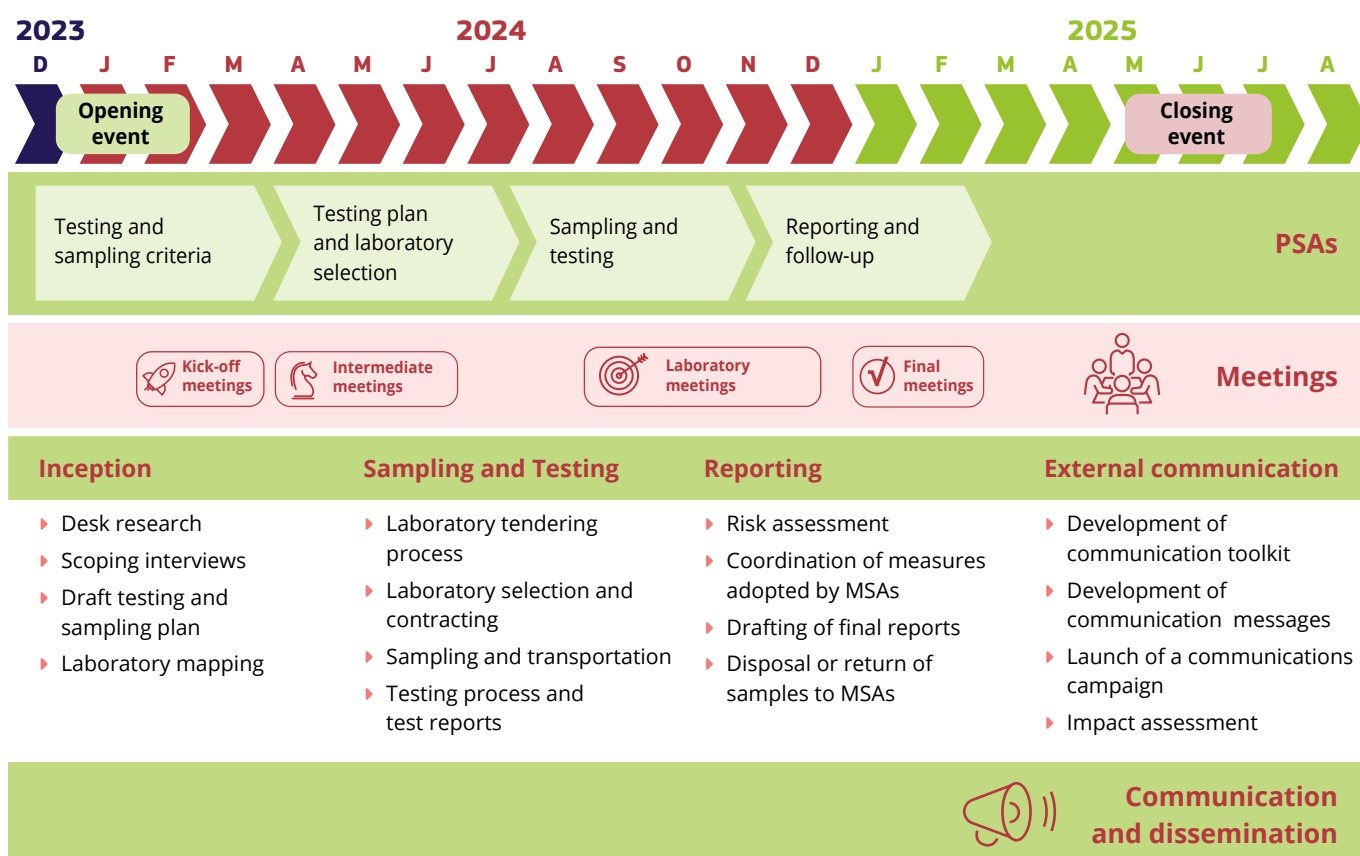


HA 2
Starter kit for
newcomers

Roles and responsibilities



Product-specific activities work plan



Product-specific activities processes and tools

<p>0 Pre-CASP process</p> <p>DG JUST conducts a priority-setting exercise with market surveillance authorities to select the product categories for each CASP project. This selection process encompasses both new and previously tested product categories in the framework of a CASP project.</p>	<p>1 Validation of testing and sampling plans</p> <p>The technical experts draft the testing plans based on the priorities set by market surveillance authorities and the main product hazards identified. The drafts are presented at the kick-off meetings, then finetuned and validated by the participants.</p>	<p>2 Laboratory selection</p> <p>The contractor's team maps the testing laboratories and contacts them to collect preliminary fee quotes and other relevant information. The tendering process is launched after the kick-off meetings, and the offers are compared and evaluated. During the intermediate meetings, the market surveillance authorities select one laboratory per activity.</p>
<p>3 Collection and transportation of samples</p> <p>The market surveillance authorities collect samples from their national markets, perform preliminary checks and send them to the selected testing laboratory.</p>	<p>4 Testing and delivery of test reports</p> <p>The laboratory tests the samples according to the agreed testing plan. The market surveillance authorities check and validate the test reports.</p>	<p>5 Risk assessment</p> <p>The technical expert and the market surveillance authorities perform risk assessments on all samples that do not meet the testing requirements.</p>
<p>6 Measures adopted by the market surveillance authorities</p> <p>The market surveillance authorities take corrective measures for the products that do not meet the requirements and issue notifications on Safety Gate.</p>		<p>7 External communications</p> <p>The external communication campaign will launch when all testing results have been validated. It is rolled out via media and influencer engagement activities, supported through stakeholder dissemination activities.</p>

External communication

Communication tools

- ▶ **Final reports** for each activity and for the CASP 2024 project;
- ▶ **Factsheets;**
- ▶ **#ProductGo game and related assets;**
- ▶ **Press kit and social media assets.**

Channels

The communication material is disseminated via:

- ▶ ec.europa.eu web presence ([Safety Gate](#), [CASP](#) webpage, [EISMEA news](#) section);
- ▶ Social media accounts of DG JUST and EISMEA;
- ▶ Communication channels of market surveillance authorities;
- ▶ Selected partner influencers;
- ▶ Selected media partnerships.

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